

### **REMARKS**

In the Office Action of December 23, 2003, the Examiner has rejected claims 1, 9-14, 17-18 and 20 under 35 USC 103(a) as being unpatentable over Bates et al in view of either Gundlach et al or Moffatt et al. Claims 5 and 7-8 are rejected under 35 USC 103(a) as being unpatentable over Bates et al in view of Gundlach et al or Moffatt et al, and further in view of Kashiwazaki et al. Finally, claim 19 is rejected under 35 USC 103(a) as being unpatentable over Bates et al in view of Gundlach et al or Moffatt et al, and further in view of Hayes.

The Office Action of December 23, 2003, has been carefully considered and by this amendment, entry of which is respectfully requested, claims 1, 5, 7-14 and 17-20 remain in the application. Furthermore, the subject matter of the various claims was commonly owned at the time any inventions covered therein were made.

Applicants respectfully traverse the 35 USC 103(a) rejections for the reason that the cited art does not render obvious the invention of Applicants. Although the Bates patent discloses EPI polymer and ammonium salts, Bates discourages the use of dyes in ink jet inks (see col. 1, lines 49-67) and also discourages the combination of dye and PEI by showing the disadvantages of such in col. 2, lines 1-14. The main emphasis in the Bates patent is on carbon black products.

The Gundlach patent discloses ink compositions which comprise acid dye, a monovalent salt and a polyquaternary compound, with the ink being free of organic solvents. The summary of the Gundlach invention is well described at col. 6, lines 19-52, yet does not even begin to obviate a coating composition as disclosed and claimed in the subject application, for use on an ink jet printed porous substrate for improving the waterfastness of the ink jet image. Nothing in Gundlach teaches or suggests using ethoxylated polyethyleneimine in an amount of about 5% by weight, a pH modifier, a thickening additive, an electrolyte, a surfactant, and water. Possibly the Examiner is referring to the salt in the composition at col. 9, lines 54-57, to obviate Applicant's invention. However, adding 5-15% of a salt to an ink or a coating fluid would, in fact, precipitate all other components in the fluid. Furthermore, the addition of 1% ammonium sulfate to the coating fluid of the subject application has an entirely

different function not presented in the Gundlach patent, because Gundlach used a different polymer. Apparently, what may have attracted the attention of the Examiner is the listing of viscosity building components that can be employed in the Gundlach disclosure. The listing encompasses col. 16, starting at line 16, all of col. 17, and through line 13 of col. 18. The listing basically covers all known viscosity modifiers, so necessarily includes the modifiers which did not work in the subject application, as well as the guar that did work in the subject application.

When considering the Moffatt et al patent, there is disclosed a composition of modified pigment particles called macromolecular chromophores or MMC. Moffatt attached a water soluble group and a reactive group to the surface of the pigment MMC, and further reacted the reactive group on MMC with a polymer to improve resistance to water. Nothing in Moffatt relates to the subject application which achieves enhancement in permanence of black and specialty non-black color ink jet prints.

Even considering Kashiwazaki et al and Hayes, there is nothing in the cited patents that teaches or obviates a coating composition for application on a porous substrate for use with a roller application. When taken singularly or in any combination, the cited art cannot obviate a composition having an ethoxylated polyethyleneimine polymer, a pH modifier, a thickening additive, an ammonium sulfate, a surfactant, and water, for producing waterfast prints which are resistant to smudging or bleeding when subjected to moisture.

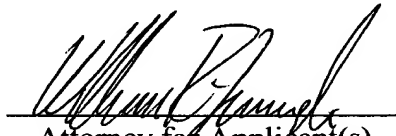
When taken singularly or in any combination, the cited patents teach only the following: (1) to use a polymer for better waterfastness; and (2) to use a thickener to raise viscosity. The cited patents all relate to *ink jet ink compositions*; whereas the subject application relates to a *coating material for substrate treatments*. The problems solved by the prior art do not relate to the coating composition of the subject invention. The differences between the prior art and the claims at issue are too diverse and numerous to be able to use the cited art to obviate the subject invention. It is respectfully submitted, therefore, that the cited art does not teach, anticipate, or render obvious the invention of Applicants, as claimed.

Claims 5, 7-14 and 17-20 depend from independent claim 1 to contain all of the limitations found therein. By this dependency, it is submitted that these claims are not anticipated, taught, or rendered obvious by the cited

documents since none of the references cited teach or suggest the use of ethoxylated polyethyleneimine in an amount of about 5%. Additionally, these claims add further limitations which distinguish them patentably from the cited documents. Accordingly, withdrawal of the rejection of claims 5, 7-14 and 17-20 under 35 USC §103(a) is respectfully requested.

In view of the foregoing remarks, the undersigned attorney respectfully submits that all of the claims of the application are clearly allowable. Therefore, Applicant's attorney respectfully requests that the Examiner's objections and rejections be withdrawn and that a formal Notice of Allowance be issued thereon.

Respectfully submitted,



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Enclosure: copy of Notice of Non-Compliant Amendment,  
attached to Office Action dated April 2, 2004